Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Review of Part 87 of the Commission's Rules	)	WT Docket No. 01-289
Concerning the Aviation Radio Service	)	

THIRD REPORT AND ORDER

Adopted: June 1, 2010 **Released: June 15, 2010**

By the Commission:

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I. INTRODUCTION AND EXECUTIVE SUMMARY

1. In this *Third Report and Order* in WT Docket No. 01-289, we amend Part 87 of the Commission's Rules[3] in the interest of accommodating the communications needs of the aviation community to the greatest possible extent, and ensuring that aeronautical spectrum is used efficiently to enhance the safety of flight. Specifically, we (a) delete the secondary allocation of the 117.975-136 MHz aeronautical frequency band for Aeronautical Mobile Satellite (Route) Service (AMS(R)S); (b) permit the

[3] 47 C.F.R. § 87.1 *et seq*.

use of 8.33 kHz channel spacing in the aeronautical enroute service and by flight test stations; (c) remove one of the four frequencies designated for Flight Information Services – Broadcast (FIS-B); (d) permit the use of specified frequencies for air-to-air communications in Hawaii; (e) permit the use of specified frequencies for air-to-air communications in the Los Angeles area; (f) clarify the applicability of the one-unicom-per-airport rule; (g) permit the filing of applications to assign or transfer control of aircraft station licenses; and (h) prohibit the certification, manufacture, importation, sale, or continued use of 121.5 MHz emergency locator transmitters (ELTs) other than the Breitling Emergency Watch ELT. [4]

II. BACKGROUND

2. This rulemaking proceeding was initiated in 2001 with the goal of comprehensively reviewing the Part 87 rules for the first time since 1988, in order to ensure that they remain up to date, and continue to further the public interest.[5] The Commission adopted a *Report and Order*[6] and a *Second Report and Order*[7] in this proceeding in 2003 and 2006, respectively, amending a number of the Part 87 rules in furtherance of its goals of "accommodating new technologies, facilitating the efficient and

[4] We do not here address certain issues discussed in the *Second Further Notice of Proposed Rulemaking* in this proceeding regarding the provision of AMS(R)S. *See* Review of Part 87 of the Commission's Rules Concerning the Aviation Radio Service, *Second Report and Order and Second Further Notice of Proposed Rule Making*, WT Docket No. 01-289, 21 FCC Rcd 11582, 11588-11594 ¶¶ 9-16 (2006) (*Second Report and Order* and *Second FNPRM*, respectively). After reviewing the comments to the *Second FNPRM*, we believe that these AMS(R)S issues are better addressed in our pending IB Docket No. 05-20 rulemaking proceeding regarding the Aeronautical Mobile Satellite Service (AMSS), *see* Service Rules and Procedures to Govern the Use of Aeronautical Mobile Satellite Service Earth Stations in Frequency Bands Allocated to the Fixed Satellite Service, *Notice of Proposed Rule Making*, IB Docket No. 05-20, 20 FCC Rcd 2906 (2005), given that AMS(R)S is a type of AMSS. We accordingly transfer the record on these AMS(R)S issues to IB Docket No. 05-20.

[5] *See* Review of Part 87 of the Commission's Rules Concerning the Aviation Radio Service, *Notice of Proposed Rule Making*, WT Docket No. 01-289, 16 FCC Rcd 19005 (2001) (*NPRM*). The Commission had not comprehensively reviewed the Part 87 rules since the 1980s. *See* Reorganization and Revision of Part 87 Governing the Aviation Services, *Report and Order*, PR Docket No. 87-214, 3 FCC Rcd 4171 (1988) (*Part 87 Reorganization Order*), *recon. granted in part*, Reorganization and Revision of Part 87 Governing the Aviation Services, *Memorandum Opinion and Order*, PR Docket No. 87-214, 4 FCC Rcd 2271 (1989) (*Part 87 Reorganization Reconsideration Order*).

[6] *See* Review of Part 87 of the Commission's Rules Concerning the Aviation Radio Service, *Report and Order and Further Notice of Proposed Rule Making*, WT Docket No. 01-289, 18 FCC Rcd 21432 (2003) (*Report and Order* and *FNPRM*, respectively). In the *Report and Order*, the Commission, *inter alia*, (a) updated certain technical requirements for AMS(R)S equipment; (b) permitted the certification of dual channel spacing transceivers to accommodate aircraft operating in countries that employ 8.33 kHz channel spacing; (c) extended the license terms of all non-aircraft Aviation Radio Service stations from five to ten years; (d) extended the construction period for unicoms and radionavigation land stations to one year; (e) authorized use of the Differential Global Positioning System (DGPS) in the 108-117.975 MHz and 1559-1610 MHz bands on a non-developmental basis; (f) required DGPS receivers to meet minimum interference immunity requirements; (g) modified the licensing process for unicoms to avoid mutual exclusivity; and (h) retained the one-per-location limit on aeronautical enroute station licenses, while clarifying the licensee's obligation to provide access to the spectrum.

[7] *See Second Report and Order*, n.2, *supra*. In the *Second Report and Order*, the Commission, *inter alia*, (a) authorized the use of Universal Access Transceiver technology on the frequency 978 MHz; (b) removed the former Civil Air Patrol channels from the Part 87 frequency table; (c) removed allocations for radionavigation in the 14000-14400 MHz band; (d) streamlined the listing of high frequency channels in the table of frequencies available for assignment; (e) provided the Federal Aviation Administration (FAA) with greater flexibility in the use of air traffic control frequencies; (f) permitted the use of an alternative station identification format by aircraft that are being moved on the ground by maintenance personnel; and (g) eliminated the assignment of FCC control numbers to ultralight aircraft for station identification.

effective use of the aeronautical spectrum, avoiding unnecessary regulation, and, above all, enhancing the safety of flight."[8] The *Second Report and Order* was accompanied by the *Second FNPRM*, in which the Commission invited comment on additional issues. Thirteen comments, eight reply comments, and eight *ex parte* presentations were filed in response to the *Second FNPRM*.[9]

III. DISCUSSION

A. AMS(R)S Operations in the VHF Band

3. The AMS(R)S is a radio service providing communications via satellite between aircraft earth stations and land stations or other aircraft earth stations.[10] In the *Second FNPRM*, the Commission tentatively agreed with NTIA and Aeronautical Radio, Inc. (ARINC) that the aeronautical VHF band, 117.975-136 MHz, is too congested to accommodate AMS(R)S operations, and that AMS(R)S does not need access to the VHF aeronautical band because the service can be provided in any Mobile Satellite Service (MSS) frequency band.[11] The Commission accordingly proposed to delete from the U.S. Table of Frequency Allocations note 5.198,[12] which allocates the aeronautical VHF band to AMS(R)S on a secondary basis.[13] ASRI, the successor to ARINC and the only party specifically addressing this issue, favors the removal of note 5.198, reiterating that the existing demand for these VHF frequencies by the services to which they are allocated on a primary basis is too great to permit any use of the band for AMS(R)S.[14] No commenter opposes the removal of note 5.198, and nothing in the record indicates that foreclosing AMS(R)S use of the aeronautical VHF band would be problematic.[15] We accordingly adopt the proposal to remove the secondary AMS(R)S allocation in the aeronautical VHF band.

[8] *Id.*, 21 FCC Rcd at 11583 ¶ 1.

[9] *See* Appendix A, *infra*, for a list of the commenters and the shorthand names by which they are referenced in the text and footnotes. We accept the late-filed comments of NTIA, Continental Airlines, and Northwest Airlines, and we accept the late-filed reply comments of TerreStar, granting TerreStar's Motion to Accept Late-Filed Reply Comments, filed April 6, 2007, in the interest of developing a complete record in this proceeding. On August 14, 2008, PATC filed a Petition to Accept Late-Filed Comments in WT [Docket No.] 01-289, accompanied by comments urging the Commission to amend Sections 87.71 and 87.73, 47 C.F.R. §§ 87.71, 87.73, to permit installation of low-power VHF aviation service transmitters having no field-adjustable components by individuals who do not hold an FCC General Radiotelephone Operator License. This request is beyond the scope of the instant proceeding, and will be addressed elsewhere. We note that, in the interim, the Wireless Telecommunications Bureau has granted partial waivers of Sections 87.71 and 87.73 to PATC. *See* Potomac Aviation Technology Corp. *Order*, 25 FCC Rcd 1876 (WTB MD 2010).

[10] *See* The Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band, *Report and Order*, IB Docket No. 99-81, 15 FCC Rcd 16127, 16154 ¶ 61 (2000).

[11] *See Second FNPRM*, 21 FCC Rcd at 11602-03 ¶ 33.

[12] *See* 47 C.F.R. § 2.106 n.5.198. Footnote 5.198 was subsequently "suppressed" by the International Telecommunication Union (ITU), *i.e.*, deleted from the International Table of Frequency Allocations. *See Final Acts WRC-07 World Radiocommunication Conference*, Article 5 at 11 (Geneva, 2007).

[13] *See Second FNPRM*, 21 FCC Rcd at 11602-03 ¶ 33.

[14] *See* ASRI Comments at 4.

[15] There are no existing AMS(R)S operations in the VHF band.

B. Channel Spacing for the Aeronautical Enroute Service and Flight Test Stations

4. *Background*. In the *Second FNPRM*, the Commission requested comment[16] on whether to amend the Part 87 rules to provide for a transition from 25 kHz channel spacing to 8.33 kHz channelization in the aeronautical enroute service.[17] Nations in Europe already have transitioned to 8.33 kHz channel spacing to address increasing congestion in the aeronautical VHF band, and ARINC recommended in its comments to the *NPRM* that the Commission consider likewise narrowbanding the aeronautical enroute service domestically to increase spectrum capacity.[18] In inviting comment on that ARINC proposal, the Commission noted that the Part 87 rules already permit the certification of dual channel spacing transceivers that can communicate using 8.33 kHz channels as well as 25 kHz channels, as an accommodation to U.S.-registered aircraft that fly both in the United States and in Europe.[19] The rules also permit flight test stations to use 8.33 kHz spacing in U.S. airspace for the purpose of testing equipment prior to delivery to customers.[20]

5. With respect to narrowbanding the aeronautical enroute service channels, the Commission stated in the *Second FNPRM* that "[u]se of 8.33 kHz channelization may enhance spectrum efficiency, accommodate the growing demand for aeronautical enroute service channels, and facilitate international interoperability."[21] The Commission also posited, however, that mandating a transition from 25 kHz to 8.33 kHz channel spacing would involve significant logistical hurdles and could impose substantial compliance costs on U.S. air carriers.[22] It therefore asked interested parties to comment on several questions regarding implementation of a mandatory transition to 8.33 kHz channel spacing.[23]

6. ASRI states that the number of VHF aeronautical enroute assignments in the United States has doubled since 25 kHz channel spacing was first implemented.[24] ASRI also notes that many U.S. aircraft already carry dual channel spacing transceivers.[25] As a consequence, ASRI asserts that the "United States aviation community needs more channels of communications, and 8.33 kHz spacing is the

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[16] *See Second FNPRM*, 21 FCC Rcd at 11603 ¶ 35.

[17] Aeronautical enroute stations provide operational control communications to aircraft along domestic or international air routes, and may not be used for public correspondence. *See* 47 C.F.R. § 87.261. Airlines and other companies that maintain fleets of aircraft use these stations to satisfy certain FAA requirements. In the case of large trunk air carriers, these stations are used for maintaining reliable communications between each aircraft and the appropriate dispatch office. In the case of small airlines and large commercial aircraft operations, aeronautical enroute stations are used for maintaining flight-following systems. *See* 14 C.F.R. §§ 121.99, 121.125.

[18] *See Second FNPRM*, 21 FCC Rcd at 11603 ¶ 34.

[19] *Id*. at 11603 n.136, *citing Report and Order*, 18 FCC Rcd at 21446-47 ¶ 31; 47 C.F.R. § 87.137.

[20] *See* 47 C.F.R. § 87.137 n.17.

[21] *See Second FNPRM*, 21 FCC Rcd at 11603 at ¶ 35.

[22] *Id*.

[23] *Id*. at 11603-04 ¶ 36.

[24] *See* ASRI Comments at 4-5. The Commission authorized the use of 25 kHz spacing in the aeronautical enroute service on a permissive basis in 1971. *See* Amendment of Parts 2 and 87 of the Rules to Provide Additional Frequencies in the 128.825-132.025 MHz Band by Permitting the Use of 25 KHz Channel Spacing, *Report and Order*, Docket No. 18931, 31 F.C.C. 2d 193 (1971). As of March 2010, there were more than 5300 VHF aeronautical enroute assignments in the United States.

[25] According to ASRI, "many of the nation's major airlines have substantial portions of their fleets equipped with radios capable of operating on 8.33 kHz channel spacing. A recent survey of major U.S. carriers reveals that more than 2000 air transport aircraft are equipped with 8.33/25 kHz radios today, and as new aircraft are being added to the fleets, 8.33 kHz channel spacing is commonly included in the radios that are installed in such aircraft, even those which are unlikely to be flown on overseas routes." *See* ASRI Comments at 4-5.

best alternative available today."[26]

7. *Discussion.* We are persuaded that it would serve the public interest to accommodate 8.33 kHz channel spacing in the aeronautical enroute service, but on a permissive rather than a mandatory basis. By providing for the permissive introduction of 8.33 kHz channel spacing in the aeronautical enroute service, we provide the aviation industry with the ability to greatly enhance spectrum efficiency and alleviate frequency congestion, while avoiding the imposition of the significant compliance burdens that could result from a mandatory narrowbanding transition. We agree with ASRI that a voluntary transition to 8.33 kHz channel spacing "will ensure the most orderly, least disruptive transition."[27] No party opposes the permissive introduction of 8.33 kHz channel spacing in the aeronautical enroute service.[28]

8. Given ASRI's unique role as the representative of the civil aviation industry[29] and the sole United States licensee in the aeronautical enroute service,[30] we also conclude that it is appropriate to let ASRI manage this transition, as its predecessor managed earlier narrowbanding transitions,[31] rather than mandate the process through regulation. We understand that industry planning for a phase-in of 8.33 kHz channel spacing already has begun, and we believe that leaving the management of that process to ASRI and the Aeronautical Frequency Committee in the first instance would best ensure the effective coordination of aeronautical enroute transmissions during the transition. ASRI explains, "Even as 8.33 kHz assignments are phased in, … for the foreseeable future there will be a need to continue to protect ACARS [Aircraft Communication Addressing and Reporting System] and VDL [VHF Data Link] Mode 2 data services, which require 25 kHz channel spacing. In addition, 25 kHz channel spacing may continue to be needed for the VHF voice networks, which use off-set carriers to create five 'virtual channels' out of the 25 kHz channels – a technique that for some time has yielded greater efficiency than even 8.33 kHz channel spacing for these carefully engineered and managed networks."[32] We will accordingly amend the Part 87 rules to accommodate the permissive use of 8.33 kHz channel spacing in

[26] *Id*.

[27] *Id*. at 6.

[28] Rockwell Collins supports the introduction of 8.33 kHz channelization in the aeronautical enroute service as "a near-term solution to aeronautical enroute communications capacity concerns," but also argues that the Commission should not commit to any near-term solution that might preclude the Commission's later adoption of a possibly forthcoming FAA/Eurocontrol Future Communications Study (FCS) Group recommendation for a future aeronautical communications technology. *See* Rockwell Collins Reply Comments at 3-4; *see also* Rockwell Collins Comments at 8-9. ASRI says it supports the efforts of the FCS to develop a common solution to meet the spectrum capacity needs of the aviation community, and notes that "[a]cting to allow, on a permissive basis, the use of 8.33 kHz channeling in the aeronautical enroute service now will not affect the adoption of some better technology in the future." *See* ASRI Reply Comments at 4-5. We clarify that our adoption of rules to allow 8.33 kHz channel spacing in the aeronautical enroute service is not intended to foreclose the adoption of additional measures, including any such measures as may be developed by the FCS, to address congestion in the aeronautical spectrum.

[29] ASRI is owned by members of the civil aviation community. The board of directors of ASRI is advised in spectrum management matters by the Aeronautical Frequency Committee, which consists of members from the major passenger and cargo air carriers, the National Business Aircraft Association, the Aircraft Owners and Pilots Association, and the Helicopter Association International. In addition, the International Air Transport Association and the Air Transportation Association of America hold non-voting representation. *See* ASRI Comments at 1 n.2.

[30] *See Report and Order*, 18 FCC Rcd at 21442 ¶ 22.

[31] *See* ASRI Comments at 5.

[32] *Id*. at 5-6.

the aeronautical enroute service.[33]

9. We also will extend the option of operating with 8.33 kHz channel spacing to flight test stations in the 117.975-137 MHz band. As noted by AFTRCC, narrowbanding would also benefit flight test stations, which are likewise facing increasing frequency congestion in U.S. airspace,[34] and which already have considerable experience operating with 8.33 kHz channel spacing, because avionics manufacturers already test and install 8.33 kHz transmitters intended for use outside the United States.[35] It is our understanding, moreover, that there have been no safety or interference problems stemming from flight test station use of 8.33 kHz channel spacing.[36] We therefore agree with AFTRCC that, now that we are permitting 8.33 kHz channel spacing in the domestic aeronautical enroute service, it is no longer necessary to limit flight test station use of 8.33 kHz channel spacing to equipment intended only for overseas use. We also conclude the removing this limitation will promote spectrum efficiency, provide flight test stations with much-needed additional frequencies, and promote aviation safety. We will amend Sections 87.137 and 87.303 of the Commission's Rules accordingly.[37]

C. Frequencies for Flight Information Services – Broadcast (FIS-B)

10. FIS-B is an aeronautical broadcast service providing safety-related and flight planning data to the cockpit via digital data link.[38] Four frequencies have been designated for FIS-B use: 136.425

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[33] The only specific rule change requested by ASRI in this regard is an amendment of Section 87.133 of the Commission's Rules, 47 C.F.R. § 87.133, to specify that any aircraft transmitter designed for optional 8.33 kHz operation be required to achieve 0.0005% frequency stability when operating in such mode, consistent with the pertinent international and industry standards. *Id*. at 6-7; *accord* Rockwell Collins Reply Comments at 4. We believe, however, that our decision to permit the use of 8.33 kHz channel spacing in the aeronautical enroute service also requires the amendment of Sections 87.173(b) and 87.263(a), (c), 47 C.F.R. §§ 87.173(b), 87.263(a), (c). We will amend all three rules – Sections 87.133, 87.173, and 87.263 – accordingly.

[34] *See* Letter dated July 3, 2007, from William K. Keane, Esq., Counsel for AFTRCC, to Marlene S. Dortch, Secretary, FCC at 2 (AFTRCC *Ex Parte*). AFTRCC explains that flight test frequencies serve as a lifeline between ground controllers and pilots/air crew, and that these frequencies are becoming highly congested in certain areas. *Id*. *See also* Letter dated June 9, 2009, from Darryl J. Holtmeyer, Chairman, AFTRCC, and Dan Hankins, Secretary and HF/VHF Coordinator, AFTRCC, to Marlene H. Dortch, Secretary, FCC, at 2 (noting, *inter alia*, that congestion on flight test frequencies has worsened while this proceeding has been pending, resulting in more frequent reports of interference between flight test communications in certain areas, and, for example, "was a contributing factor in a near-miss incident when the pilot missed instructions from the LAX Tower due to chatter by another company sharing the flight test frequency").

[35] *See* AFTRCC *Ex Parte* at 2.

[36] *See* Letter dated July 27, 2007, from William K. Keane, Esq., Counsel for AFTRCC, to Marlene S. Dortch, Secretary, FCC (memorializing July 26, 2007 *ex parte* presentation). We recognize, moreover, that the flight test community represents a small, discrete segment of the aviation community with special technical expertise.

[37] *See* 47 C.F.R. §§ 87.137, 87.303. (We also amend Section 87.303 to correct a typographical error in the table in paragraph (b) of that rule, removing the letter "S" which precedes the frequencies 123.425 MHz, 123.475 MHz, and 123.525 MHz.) With respect to both aeronautical enroute stations and flight test stations, we will begin accepting applications requesting authority to operate with 8.33 kHz spacing after the necessary modifications to our electronic filing system have been implemented. The Wireless Telecommunications Bureau is directed to issue a public notice to alert applicants when it is ready to begin accepting such applications.

[38] *See* Amendment of Parts 2 and 87 of the Commission's Rules to Accommodate Advanced Digital Communications in the 117.975-137 MHz Band and to Implement Flight Information Services in the 136-137 MHz Band, *Report and Order*, WT Docket No. 00-77, 16 FCC Rcd 8226, *reconsideration granted in part*, *Memorandum Opinion and Order*, WT Docket No. 00-77, 17 FCC Rcd 360 (2001). The Commission's Rules define FIS-B as a "broadcast service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights." *See* 47 C.F.R. § 87.5.

MHz, 136.450 MHz, 136.475 MHz, and 136.500 MHz.[39] Based on ARINC's representation that two of those frequencies, 136.475 MHz and 136.500 MHz, are not in fact needed for FIS-B, the Commission asked in the *Second FNPRM* whether it should remove the FIS-B designation of those two frequencies.[40] In response, ASRI supports the removal of 136.500 MHz, as proposed by its predecessor, asserting that the frequency has not been used, and is not needed, for FIS-B, but is needed for aeronautical enroute service.[41] NTIA opposes removal of 136.475 MHz, however, because that frequency is still required for FIS-B.[42] The record, in sum, clearly indicates that we should retain 136.475 MHz for FIS-B use, while removing 136.500 MHz. We will amend Section 87.187(dd) accordingly.

D. Frequencies for Air-to-Air Use in Hawaii

11. The Commission proposed in the *Second FNPRM* to codify the terms of a Wireless Telecommunications Bureau grant of special temporary authority (STA) to the Hawaii Air Tour Safety Working Group (HATSWG).[43] HATSWG had filed a petition for rulemaking to codify the STA, which authorizes the use of specified frequencies as air-to-air traffic advisory frequencies by air-tour operators, commercial operators, and the general aviation community in the Hawaiian Islands.[44] Noting that the HATSWG Petition was endorsed by the FAA[45] and was unopposed,[46] the Commission concurred that the operations authorized by the STA had benefited aviation safety in Hawaii, and tentatively concluded that

[39] *See* 47 C.F.R. § 87.187(dd).

[40] *See Second FNPRM*, 21 FCC Rcd at 11604 ¶ 37. ARINC requested that the Commission remove 136.500 MHz, an operational control frequency used by ARINC, from the rule, but did not request removal of 136.475 MHz, which is an air traffic control frequency managed by the FAA.

[41] *See* ASRI Comments at 7.

[42] *See* NTIA Comments at 1. We understand that FIS-B Data Link services on 136.450 MHz and 136.475 MHz will terminate in 2010 to free spectrum needed to support Next Generation (NextGen) Data Communications being implemented by the FAA. Rule changes to accommodate NextGen Data Communications, including possible redesignation of FIS-B frequencies, are beyond the scope of this proceeding, but can be addressed in a future rulemaking proceeding.

[43] *See Second FNPRM* at 11604-05 ¶ 38.

[44] *See* Hawaii Air Tour Safety Working Group, Petition for Rulemaking, RM-10824 (filed Sept. 26, 2003) (HATSWG Petition). The HATSWG Petition requested specifically that the Commission amend Section 87.187 of the Rules, 47 C.F.R. § 87.187, to provide that (1) the frequency 120.650 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Maui; (2) the frequency 121.950 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Molokai; (3) the frequency 122.850 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Oahu; (4) the frequency 122.850 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Hawaii when aircraft are south and east of the 215 degree radial of the ITO (Hilo) VOR (*i.e.*, the 215 degree radial of very high frequency omni-directional radio range of Hilo International Airport); (5) the frequency 127.050 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Hawaii when aircraft are north and west of the 215 degree radial of the ITO (Hilo) VOR; and (6) the frequency 127.050 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the Hawaiian Island of Kauai.

[45] *Id.* at Exhibit C, Letter dated Sept. 12, 2003, from Peter E. Beckner, Manager, Honolulu Flight Standards District Office, FAA, to FCC.

[46] The HATSWG Petition was placed on public notice on November 17, 2003. *See* Consumer & Governmental Affairs Bureau Reference Information Center Petition for Rulemaking Filed, *Public Notice*, Report No. 2637 (CGB rel. Nov. 17, 2003).

codification of the terms of the STA would serve the public interest.[47] Because no commenter opposes this proposal,[48] we will amend our rules accordingly.[49]

E. Frequencies for Air-to-Air Use in the Los Angeles Area

12. The Commission also proposed in the *Second FNPRM* to codify the terms of an STA that the Wireless Telecommunications Bureau granted to the Southern California Airspace Users Working Group (SCAUWG).[50] That STA authorized the use of specified frequencies for air-to-air communications in the Los Angeles area,[51] to alleviate frequency congestion stemming from extensive aviation training operations in the area.[52] Noting the absence of any reports of objectionable interference attributable to the STA-authorized operations, the Commission tentatively concluded that codification of the terms of the STA would serve the public interest.[53] Because no commenter opposes this proposal,[54]

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[47] *See Second FNPRM*, 21 FCC Rcd at 11605 ¶ 38. The Commission stated, "The use of the specified frequencies for air-to-air communications in Hawaii has improved air safety, and there have been no reports of objectionable interference in the more than four years that aircraft in Hawaii have operated on these frequencies pursuant to the STA. We believe that codifying the provisions of the STA may obviate the need for HATSWG to repeatedly renew the STA, provide an added measure of certainty and stability for the Hawaiian aviation community, and facilitate publication of the frequencies in the Hawaiian Islands Aeronautical Section Chart and other official publications." *Id*.

[48] The only commenter specifically addressing this proposal is ASRI, which indicates that it has no objection to codification of the HATSWG STA. *See* ASRI Comments at 7.

[49] As proposed, we will add a new paragraph (gg) to Section 87.187 of the Rules, 47 C.F.R. § 87.187, and add a new footnote, US403, to the U.S. Table of Frequency Allocations, 47 C.F.R. § 2.106, to specify that the frequencies 120.65 MHz and 127.05 MHz may be authorized for use by non-Federal aircraft stations for air-to-air communications in the specified areas pursuant to Section 87.187. The footnote is necessitated by the fact that the frequencies 120.65 MHz and 127.05 MHz are in frequency bands allocated to the aeronautical mobile (R) service, while their use for air-to-air communications under the HATSWG STA, and, going forward, pursuant to Section 87.187(gg), is in the nature of aeronautical mobile service. *See Second FNPRM*, 21 FCC Rcd at 11605 ¶ 38. We have modified the text of the United States footnote from what was proposed in the *Second FNPRM*, to more precisely identify the bandwidths of the two channels and the geographic areas in which each channel may be operated pursuant to this new allocation, and also to clarify that this allocation is on a primary basis.

[50] *See Second FNPRM*, 21 FCC Rcd at 11605-06 ¶ 39.

[51] Specifically, the STA authorizes SCAUWG to use (1) the frequency 121.95 MHz in Area 1a (southwest of Long Beach): 33°46' N/118°27' W, 33°47'N/118°12' W, 33°40' N/118°00' W, 33°35' N/118°08' W, 34°00' N/118°26' W; (2) the frequency 122.775 MHz in Area 1b (San Fernando Valley): 34°22' N/118°30' W, 34°35' N/118°15' W, 34°27' N/118°15' W, 34°16' N/118°35' W, 34°06' N/118°35' W, 34°05' N/118°50' W; (3) the frequency 123.30 MHz in Area 2 (Ontario): 34°08' N/118°00' W, 34°10' N/117°08' W, 34°00' N/117°08' W, 33°53' N/117°42' W, 33°58' N/118°00' W; and (4) the frequency 123.50 MHz in Area 3a (Perris Valley): 33°53'N/117°37'W, 34°00' N/117°15' W, 34°00'/117°07' W, 33°28' N/116°55' W, 33°27' N/117°12' W, and in Area 3b (El Toro): 33°50' N/117°48' W, 33°51' N/117°41' W, 33°38' N/117°30' W, 33°30' N/117°30' W, 33°30 N/117°49' W. *See* Letter dated June 17, 2004, from Tracy Simmons, Associate Chief, Licensing Operations, Public Safety and Critical Infrastructure Division, Wireless Telecommunications Bureau, to John F. Kenton, Co-Chairman, Southern California Airspace Users Working Group. As required under Section 87.323(b) of the Commission's Rules, 47 C.F.R. § 87.323(b), SCAUWG coordinated with the FAA's Flight Standards Division with respect to the use of the frequency 121.95 MHz for air-to-air communications.

[52] *See* Letter dated April 26, 2004, from John F. Kenton, Co-Chairman, Southern California Airspace Users Working Group, to Kim Kleppinger, FCC; Letter dated June 9, 2004, from John F. Kenton, Co-Chairman, Southern California Airspace Users Working Group, to Kim Kleppinger, FCC.

[53] *See Second FNPRM*, 21 FCC Rcd at 11606 ¶ 39. The Commission stated that codifying the provisions of the STA may obviate the need for SCAUWG to repeatedly renew the STA, provide an added measure of certainty and stability for the Los Angeles aviation community, and enhance aviation safety, particularly in flight training areas.

we amend our rules accordingly.[55]

F. Applicability of the One-Unicom-Per-Airport Rule

13. The Commission proposed in the *Second FNPRM* to clarify the circumstances under which an airport is limited to a single unicom.[56] Section 87.215(b) of the Rules currently provides that the limitation to a single unicom does not apply to any airport which has a control tower, remote communications outlet (RCO), or FAA flight service station (FSS).[57] The Commission has clarified in other proceedings, however, that the one-unicom-per-airport limitation is intended to apply to any airport which does not have a control tower, RCO or FSS *that effectively controls traffic at the airport*, and that the one-unicom limitation accordingly does apply to any airport where the airport's unicom frequency serves as the published common traffic advisory frequency (CTAF).[58] An airport with an RCO or FSS may nonetheless be deemed uncontrolled if the facility does not have the capacity to issue common traffic advisories. The Commission therefore proposed to clarify that the one unicom limitation applies to any airport at which the unicom frequency is also the CTAF. No party commented on this proposal.[59] We will therefore amend Section 87.215 to remove any residual confusion as to the scope of the one-unicom-per-airport rule.

G. Applications to Assign or Transfer Control of Aircraft Licenses

14. *Background*. The Commission's Rules prohibit the assignment or transfer of control of certain licenses, including aircraft station licenses.[60] Generally, then, when a Commission aircraft station

(Continued from previous page)

[54] The only commenter specifically addressing this proposal is ASRI, which indicates that it has no objection to codification of the SCAUWG STA. *See* ASRI Comments at 7.

[55] As proposed, we will add a new paragraph (hh) to Section 87.187 of the Rules, 47 C.F.R. § 87.187.

[56] *See Second FNPRM*, 21 FCC Rcd at 11606-07 ¶ 40. Unicom stations, or simply unicoms, are also referred to as aeronautical advisory stations. They provide safety-related and other information to aircraft, primarily general aviation aircraft. Unicom transmissions are limited to the necessities of safe and expeditious operation of aircraft, including runway conditions, types of fuel available, wind conditions, weather information, dispatching, and other necessary safety information. However, unicom stations also may transmit, on a secondary basis, information pertaining to the efficient portal-to-portal transit of an aircraft, such as information concerning available ground transportation, food, and lodging. Unicoms must provide impartial information concerning available ground services, and must provide service to any aircraft station upon request and without discrimination. *See* 47 C.F.R. § 87.215.

[57] *See* 47 C.F.R. § 87.215(b).

[58] *See Report and Order*, 18 FCC Rcd at 21459 n.211; Reorganization and Revision of Part 87 of the Rules Governing the Aviation Services, *Notice of Proposed Rule Making*, PR Docket No. 87-214, 2 FCC Rcd 4069, 4070 ¶¶ 11-12 (1987) (*1987 NPRM*); *see also, e.g.*, Starbase Aviation Incorporated, *Order on Reconsideration*, 19 FCC Rcd 21974, 21977 ¶ 8 n.25 (WTB PSCID 2004); The Flight Department, *Order*, 18 FCC Rcd 23943, 23945 ¶ 3 (WTB PSPWD 2003); Resort Aviation Services, Inc., *Hearing Designation Order*, WT Docket No. 02-179, 17 FCC Rcd 12816, 12816 n.2 (WTB PSPWD 2002). This interpretation of the rule follows from the purpose of the one-unicom-per-airport limitation, which is to ensure that a single entity has exclusive oversight and responsibility with respect to all unicom transmissions at any airport in which unicom transmissions serve as the primary source of safety-related information and advisories. *See, e.g., 1987 NPRM*, 2 FCC Rcd at 4070 ¶ 11 (observing that limiting an airport to a single unicom "provide[s] a published frequency for all communications related to the airport, including the common traffic advisory frequency (CTAF)").

[59] Wartofsky suggests other changes to the Part 87 rules governing unicoms, but those recommendations are outside the scope of this proceeding, and will not be considered here. *See* Wartofsky Comments at 1 (requesting that the Commission adopt a requirement that automated unicoms be "adaptive to frequency congestion," and that the Commission assign multicom frequencies to unicoms in certain circumstances).

[60] *See* 47 C.F.R. § 1.948(b)(5). The only other types of wireless licenses that may not be assigned or transferred are Amateur, Ship, Commercial Operator and Personal Radio Services (except the 218-219 MHz Service) licenses. *Id*. (continued….)

licensee, or an entity controlling such a licensee, needs Commission authority to consummate a transaction involving those licenses, the licenses may not be included on an assignment of authorization or transfer of control application (FCC Form 603), but must instead be submitted to the Commission for cancellation, and the entity that will control the aircraft station assets post-transaction must apply for new aircraft station licenses. In the *Second FNPRM*, the Commission proposed removing the prohibition on the assignment or transfer of aircraft station licenses.[61] The Commission reasoned that "[t]he prohibition on assigning or transferring aircraft licenses … requires applicants and Commission licensing personnel to undertake a relatively cumbersome process when control of aircraft radio station assets are to change hands, and there appears to be little public interest benefit, if any, for continuing the prohibition."[62]

15. *Discussion*. We believe that it would serve the public interest to permit the assignment and transfer of control of aircraft station licenses. Permitting the assignment and transfer of control of aircraft station licenses would be more administratively efficient than maintaining the current prohibition on applications to assign or transfer such licenses, and would reduce transactional costs for aircraft station licensees.[63] ASRI, the only commenter addressing this issue, agrees that it would be beneficial to permit the assignment and transfer of aircraft station licenses.[64] We will therefore amend Section 1.948(b)(5) to remove the prohibition of applications to assign or transfer control of aircraft station licenses.[65] Aircraft station licensees and potential licensees are cautioned that failure to obtain Commission approval for an assignment or transfer of control of an aircraft station license may result in enforcement action being taken against the entities involved.

H. ELTs Operating on the Frequency 121.5 MHz

16. *Background*. In the *Second FNPRM*, the Commission requested comment on what actions it should take with respect to 121.5 MHz ELTs in light of the scheduled termination of satellite

(Continued from previous page)
The Personal Radio Services generally are licensed by rule. *See generally* 47 C.F.R. Part 95. The bar on assigning or transferring Amateur and Commercial Operator licenses is a logical corollary of the requirement that applicants for such licenses pass an examination to demonstrate their qualifications. *See* 47 C.F.R. §§ 13.201, 97.501.

[61] *See Second FNPRM*, 21 FCC Rcd at 11607-08 ¶ 42.

[62] *Id*. at 11607 ¶ 42. The Commission noted, moreover, that the difficulties caused by prohibiting the assignment or transfer of control of aircraft station licenses are magnified when an airline enters or emerges from bankruptcy, due both to the large number of aircraft station licenses typically involved and certain issues that uniquely attend bankruptcy-related assignments and transfers of control. *Id*.

[63] In addition, we discern no basis to treat aircraft station licenses differently in this regard from the other types of wireless licenses for which assignment and transfer of control applications are accepted.

[64] *See* ASRI Comments at 7-8. According to ASRI, "In this era of great and often rapid change in the aviation industry, the current system of requiring the application for and issuance of new authorizations whenever the ownership of an aircraft operating entity (and FCC license holder) is transferred or the assets of the entity are sold to a new entity has proved to be a needlessly complex and disruptive requirement." *Id*. ASRI also requests that the Commission adopt rules according proposed assignees and transferees of aircraft station licenses conditional temporary authority to operate the licensed facilities for up to six months upon the filing of an assignment/transfer of control application, as it does with respect to certain types of private land mobile radio licenses. *Id*., *citing* 47 C.F.R. § 90.159(c). We decline to accord temporary conditional authority to proposed assignees and transferees of aircraft station licenses because the existing record does not demonstrate that such a rule is needed. We note that applicants for new aircraft radio station licenses have temporary operating authority for a period of ninety days upon filing a properly executed certification on FCC Form 605. *See* 47 C.F.R. § 1.931(a)(6).

[65] We will begin accepting applications to assign or transfer aircraft station licenses after the necessary modifications to our electronic filing system have been implemented. The Wireless Telecommunications Bureau is directed to issue a public notice to alert applicants when it is ready to begin accepting such applications.

monitoring of the frequency.[66] Formerly, the Cospas-Sarsat satellite system (Cospas-Sarsat)[67] monitored distress signals on the frequency 121.5 MHz, and relayed those signals to search and rescue authorities. As it first announced in October 2000, however, Cospas-Sarsat stopped monitoring 121.5 MHz signals as of February 1, 2009.[68] Cospas-Sarsat stopped processing distress signals from 121.5 MHz emergency radiobeacons due to accuracy and false alert problems, and, with the support of international aviation and maritime organizations, has urged users of 121.5 MHz ELTs and EPIRBs to switch to 406.0-406.1 MHz ELTs and EPIRBs.[69] As the Commission further noted in the *Second FNPRM*, moreover, the National Oceanic and Atmospheric Administration, the U.S. Coast Guard, the U.S. Air Force, and the National Aeronautical and Space Administration, which jointly administer the Cospas-Sarsat system in the United States, have strongly recommended that users of 121.5 MHz beacons switch to 406.0-406.1 MHz beacons.[70]

17. *Discussion*. After reviewing the comments, we conclude that we should prohibit the certification, manufacture, importation, sale or continued use of 121.5 MHz ELTs. The USCG and NOAA, as well as other commenters, support a prohibition on any continued certification, manufacture, importation, sale or use of 121.5 MHz ELTs, for the reasons cited in the *Second FNPRM*.[71] There is no

[66] *See Second FNPRM*, 21 FCC Rcd at 11608-09 ¶ 43. ELTs are radiobeacons that are typically activated manually or automatically to alert search and rescue personnel that an aircraft has crashed, and to identify the location of the aircraft and any survivors. *See* 47 C.F.R. §§ 87.5, 87.193. The term ELT is specific to radiobeacons on board aircraft. Radiobeacons on board marine vessels are termed emergency position indicating radiobeacons (EPIRBs), and radiobeacons for use on land are termed Personal Locator Beacons (PLBs). The Commission previously determined to terminate the certification of EPIRBs operating on the frequency 121.5 MHz, and to prohibit their manufacture, importation, sale or use in the United States. *See* Amendment of Parts 13 and 80 of the Commission's Rules Concerning Maritime Communications, *Report and Order and Further Notice of Proposed Rule Making*, WT Docket No. 00-48, 17 FCC Rcd 6741, 6761-62 ¶ 47 (2002) (*GMDSS Report and Order*); 47 C.F.R. § 80.1055. (PLBs never have been authorized to operate on the frequency 121.5 MHz, but only on 406.025 MHz. *See* Amendment of Part 95 of the Commission's Rules to Authorize the Use of 406.025 MHz for Personal Locator Beacons (PLB), *Report and Order*, WT Docket No. 99-366, 17 FCC Rcd 19871 (2002).)

[67] Cospas/Sarsat is a joint international satellite-based search and rescue system established by Canada, France, Russia, and the United States. Cospas is an acronym for a Russian phrase meaning space system for search and distress vessels. Sarsat stands for Search and Rescue Satellite Aided Tracking.

[68] *See* Termination of 121.5/243 MHz Satellite Alerting, *Notice*, National Oceanic and Atmospheric Administration Docket No. 010501107-1107-01, 66 Fed. Reg. 34912, 34913 (2001) (*NOAA Notice*); *see also* Wireless Telecommunications Bureau Reminds Aviators and Mariners that Satellite Monitoring of 121.5 MHz Alerts Will End February 1, 2009, *Public Notice*, 24 FCC Rcd 149 (WTB 2009). Cospas-Sarsat also announced that it would terminate processing of distress signals on 243 MHz, which is generally confined to military use.

[69] *See NOAA Notice*, 66 Fed. Reg. at 34913. 406.0-406.1 MHz emergency beacons transmit a digital signal, and are more reliable and more precise than 121.5 MHz emergency beacons in locating parties in distress. 406.0-406.1 MHz emergency beacons are less susceptible to false alerts, because each 406.0-406.1 MHz emergency beacon has a unique identifier encoded within the digital signal. As long as this identifier has been registered, as is legally required, Rescue Control Centers can quickly verify that the distress is real, as well as ascertain the identity and location of the parties in distress. (All 406.0-406.1 MHz radiobeacons must be registered in accordance with international regulations established by the International Civil Aviation Organization and the International Maritime Organization, and registration information is made available to search and rescue authorities on a 24-hour basis. *See* http://cospas-sarsat.org/index.php?option=com_content&view=article&id=184&Itemid=114&lang=en. A number of countries maintain national 406 MHz beacon registration databases. *See, e.g.*, http://www.beaconregistration.noaa.gov/.) Beacons operating on 121.5 MHz, in contrast, are not capable of automatically verifying that the distress is real, and false alerts are frequent.

[70] *See Second FNPRM,* 21 FCC Rcd at 11609 ¶ 43, *citing* http://www.sarsat.noaa.gov/; *NOAA Notice,* 66 Fed. Reg. at 34913.

[71] *See* USCG Comments at 1; NOAA Comments at 1-2; Kissel Comments at 1; Knox Comments at 1; *but see* Wartofsky Comments at 1 (opposing a phase-out of 121.5 MHz ELTs due to the "exorbitant" prices of 406.0-406.1 (continued….)

dispute that 406.0-406.1 MHz ELTs are more accurate and reliable than 121.5 MHz ELTs,[72] and minimize false alerts.[73] We believe that if 121.5 MHz ELTs are no longer available, aircraft owners and operators will migrate to 406.0-406.1 MHz ELTs,[74] and the advantages of 406.0-406.1 MHz ELTs will provide safety benefits for search and rescue teams as well as aircraft pilots, crew and passengers, while also preserving search and rescue resources for real emergencies.[75] Were we to permit continued marketing and use of 121.5 MHz ELTS, on the other hand, it would engender the risk that aircraft owners and operators would mistakenly rely on those ELTs for the relay of distress alerts.[76]

18. We therefore amend the Commission's rules to prohibit further certification, manufacture, importation, sale or use of 121.5 MHz ELTs.[77] This action is consistent with the Commission's earlier decision prohibiting the operation of EPIRBs on 121.5 MHz.[78] It is also consistent with the efforts of NOAA, other federal agencies, the U.S. military, and private organizations, both domestic and international, to strongly encourage aircraft owners and pilots, training institutions, manufacturers and other aviation industry stakeholders to transition to 406.0-406.1 MHz ELTs.[79]

19. The *Second FNPRM* did not specifically invite comment regarding the Breitling Emergency Watch ELT (Breitling Emergency Watch), which is designed to transmit a distress signal on the frequency 121.5 MHz, but only as a homing signal for search and rescue personnel, and not for

(Continued from previous page)
ELTs and the claimed residual safety benefits of such ELTs even after termination of Cospas-Sarsat monitoring of the frequency).

[72] *See, e.g.*, Knox Comments at 2 (asserting that "406 MHz distress alerting beacons offer search and rescue providers and beacon users a quantum leap in technology and significantly more precise distress alerting"); NOAA Comments at 1 (noting that "on a per beacon basis, four times as many lives are being saved with 406 MHz beacons than with those that operate on 121.5 MHz"); USCG Comments at 1 (observing that "[n]ot only has 406 MHz distress alerting equipment proven to be dramatically more effective than 121.5 MHz equipment for lifesaving, but the speed and position accuracy of 406 MHz alert information will continue to improve with the next generation Cospas-Sarsat satellite system").

[73] *See* Kissel Comments at 1.

[74] *See* Kissel Comments at 1; Knox Comments at 1. NOAA observes that, as a consequence of existing outreach and regulatory efforts worldwide, the use of 406.0-406.1 MHz ELTs already "is growing at an increasing rate" and that although 406.0-4061 MHz ELTs still cost more than 121.5 MHz ELTs, the cost of 406.0-406.1 MHz ELTs is falling. *See* NOAA Comments at 2.

[75] *See* NOAA Comments at 1; Kissel Comments at 1.

[76] We agree with the USCG that 121.5 MHz ELTs have little residual value for distress alerting purposes now that Cospas-Sarsat has terminated satellite monitoring of the frequency. *See* USCG Comments at 1. We also believe that whatever residual value 121.5 MHz ELTs may have after February 1, 2009, is outweighed by the compelling interest in ensuring that aviators do not mistakenly rely on 121.5 MHz ELTs for distress alerting and relay in lieu of carrying 406.0-406.1 MHz ELTs. We are not persuaded by Wartofsky's speculation that 121.5 MHz ELTs may retain value for distress alerting purposes through the emergence of an "alternative ELT surveillance technology." *See* Wartofsky Comments at 1.

[77] Although this may force some aircraft owners and operators to terminate their use of 121.5 MHz ELTs sooner than they may have anticipated when they acquired the device, and impel them to incur the cost of purchasing a 406.0-406.1 MHz ELT as a replacement, the safety benefits of imposing an immediate prohibition on continued use of 121.5 MHz ELTs outweigh the costs. We note, moreover, that the users of 121.5 MHz ELTs have been on notice of the need to transition to 406.0-406.1 MHz ELTs for a long time. As explained *supra*, Cospas-Sarsat announced the 2009 termination of 121.5 MHz signal monitoring in 2000, and the Commission specifically raised the issue of a domestic prohibition of continued use of 121.5 MHz ELTs in the *Second FNPRM*, which was released in 2006.

[78] *See* n.64, *supra*.

[79] *See* NOAA Comments at 2.

satellite alerting purposes.[80] Sale and use of the Breitling Emergency Watch as a 121.5 MHz radiobeacon is authorized by a waiver granted by the Wireless Telecommunications Bureau's former Public Safety and Private Wireless Division.[81] Although we are prohibiting any continued marketing or use of standard 121.5 MHz ELTs, we will permit the continued marketing and use of the Breitling Emergency Watch.[82] We agree with the commenters addressing the issue that Cospas-Sarsat's termination of satellite monitoring of 121.5 MHz has no bearing on the utility of the Breitling Emergency Watch, which was never designed or marketed as a functional substitute for a standard ELT (or any device with satellite-alerting capabilities).[83] The functionality and safety benefits of the Breitling Emergency Watch were never dependent upon Cospas-Sarsat's processing of 121.5 MHz distress signals. We will therefore leave intact the waiver granted to Breitling to permit marketing and use of the Breitling Emergency Watch.[84]

I. Cross-References and Frequency Listings

20. We take this opportunity to correct errors in Sections 87.187(cc) and 87.215(f) of the Commission's Rules.[85] In the Universal Licensing System rulemaking proceeding, the Commission amended Section 87.187(bb) and (cc), which designates frequencies for air-to-air use in the vicinity of the Grand Canyon, to convert the coordinates from the 1927 North American Datum to the 1983 North American Datum.[86] When the amended rule was published in the Federal Register, however, the footnote reference in paragraph (cc) was inadvertently changed from "1" to "2."[87] We therefore correct Section 87.187(cc) to reference footnote 1. With respect to Section 87.215(f), the cross-reference to paragraph (d) as the provision governing the notice requirements for unicom applicants is incorrect, since paragraph (d) was redesignated as paragraph (g) in the amendment of Section 87.215 adopted in the *Report and Order*.[88] We therefore correct Section 87.215(f) to specify that an applicant for an interim unicom license

[80] *See* Letter dated Sept. 28, 2007, from Aaron M. Panner, Esq., Counsel for Breitling U.S.A., Inc., to Marlene Dortch, Secretary, FCC, at 1; Trahos Comments at 5-6; *see also* Wartofsky Comments at 1.

[81] *See* Letter, dated July 9, 2000, from D'wana R. Terry, Chief, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau, to Breitling U.S.A., Inc., *as modified by* Breitling U.S.A., Inc., *Order*, 16 FCC Rcd 18560, 18561 ¶ 6 (WTB PSPWD 2001). A waiver was required because the Breitling Emergency Watch does not comply with certain technical requirements for ELTs.

[82] We refer solely to the Breitling Emergency Watch in this context because we are aware of no other device for aircraft use that is intended to operate in the same fashion as the Breitling Emergency Watch, *i.e.*, transmission solely of a short-range homing signal on 121.5 MHz. Indeed, when the Commission proposed to codify the terms of the Breitling Emergency Watch waiver so as to permit the certification, marketing and use of similar devices, no party filed comments favoring such action. *See Second Report and Order*, 21 FCC Rcd at 11599 ¶ 24.

[83] *See* Letter dated Oct. 9, 2007, from Aaron M. Panner, Esq., Counsel for Breitling U.S.A., Inc., to Marlene Dortch, Secretary, FCC (memorializing October 5, 2007 *ex parte* presentation). Therefore, the use of the Breitling Emergency Watch does not raise the same concerns as do other 121.5 MHz ELTs with respect to consumers' unfounded reliance on the device for satellite distress alerting, and the transmission of false alerts triggering the deployment of search and rescue teams.

[84] This exception is consistent with the Commission's decision, when it phased out 121.5 MHz EPIRBs, to permit the continued manufacture, sale and use of 121.5 MHz "man-overboard" devices that are designed to transmit only a short-range homing signal. *See GMDSS Report and Order*, 17 FCC Rcd at 6761-62 n.124.

[85] *See* 47 C.F.R. §§ 87.187(cc), 87.215(f). These rule changes do not affect the rights or obligations of any party and we believe that no one in the public would be interested in commenting. We thus find good cause to adopt these rule changes without APA notice and comment. *See* 5 U.S.C. § 553(b)(3)(B).

[86] *See* Biennial Regulatory Review -- Amendment of Parts 0, 1, 13, 22, 24, 26, 27, 80, 87, 90, 95, 97, and 101 of the Commission's Rules to Facilitate the Development and Use of the Universal Licensing System in the Wireless Telecommunications Services, *Report and Order*, 13 FCC Rcd 21027, 21085 ¶ 129 (1998).

[87] *See* 63 Fed. Reg. 68904, 68957 (1998).

[88] *See Report and Order*, 18 FCC Rcd at 21499 (Appendix A: Final Rules).

"must notify the present licensee and must comply with the notice requirements of paragraph (g) of this section."

21. Finally, we revise the Section 87.173(b) listing of frequencies available under Part 87, solely for informational purposes.[89] First, we break down the listing for the frequency band 72.020-75.980 MHz into separate listings for 72.02-72.98 MHz and 75.42-75.98 MHz, to more closely align this listing with the listing of operational frequencies set forth in Section 87.449.[90] Second, we remove references to the station class code (FAP) for the Civil Air Patrol (CAP) from Section 87.173(b) (and Section 87.171[91]), in keeping with the Commission's earlier determination to remove all references to the CAP as obsolete.[92] Third, we add Subpart S to the Subpart column in the Section 87.173(b) table for the frequencies 118.000-121.400 MHz, 121.975 MHz, 122.025 MHz, 122.075 MHz, 123.6-128.8 MHz, and 132.025-135.975 MHz. These frequencies are authorized for use by automatic weather observation stations (station class code FAW), which are governed by Subpart S.[93]

IV. CONCLUSION

22. The Commission remains committed to updating its Part 87 regulations as needed to ensure that they are clear and up to date, accommodate advances in avionics technology, allocate spectrum so as to best promote aviation safety and spectrum efficiency, and otherwise promote the public interest. The rule amendments we adopt in this *Third Report and Order* in WT Docket No. 01-289 further these important objectives.

V. PROCEDURAL MATTERS

A. Congressional Review Act

23. The Commission will send a copy of this *Third Report and Order* in a report to be sent to Congress and the Government *Accountability* Office pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A).

B. Regulatory Flexibility Act

24. As required by *the* Regulatory Flexibility Act (RFA),[94] the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) of the rules adopted in this *Third Report and Order*. The FRFA for the *Third Report and Order* is contained in Appendix C. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of the *Third Report and Order*, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with the RFA.[95] In addition, the Commission will send a copy of the *Third Report and Order*,

[89] *See* 47 C.F.R. § 87.173(b). These amendments of Section 87.173(b) do not affect the rights or obligations of any party and we believe that no one in the public would be interested in commenting. We thus find good cause to adopt these rule changes without APA notice and comment. *See* 5 U.S.C. § 553(b)(3)(B).

[90] *See* 47 C.F.R. § 87.449.

[91] *See* 47 C.F.R. § 87.171.

[92] *See Second Report and Order*, 21 FCC Rcd at 11595 ¶ 18.

[93] *See* 47 C.F.R. §§ 87.525-87.529.

[94] 5 U.S.C. § 603.

[95] *Id.* § 603(a).

including the FRFA, in a report to Congress pursuant to the Congressional Review Act.[96]

C. Paperwork Reduction Act

25. This *Third Report and Order* does not contain any new or modified information collection.

D. Ordering Clauses

26. Accordingly, IT IS ORDERED that, pursuant to the authority of Sections 4(i), 303(r), and 332(a)(2) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), 332(a)(2), Parts 1, 2 and 87 of the Commission's Rules ARE AMENDED as set forth in the attached Appendix B, effective sixty days after publication in the Federal Register.

27. IT IS FURTHER ORDERED, that the late-filed comments filed by the National Telecommunications and Information Administration, Continental Airlines, and Northwest Airlines ARE ACCEPTED, and the late-filed reply comments filed by TerreStar Networks, Inc. ARE ACCEPTED, and the Motion to Accept Late-Filed Reply Comments filed by TerreStar Networks, Inc., on April 6, 2007, IS GRANTED.

28. IT IS FURTHER ORDERED, that the Petition to Accept Late-Filed Comments for WT [Docket No.] 01-289 filed by Potomac Aviation Technology Corp. on August 14, 2008, IS DENIED.

29. IT IS FURTHER ORDERED that the record on the AMS(R)S issues not resolved in the instant *Third Report and Order* IS TRANSFERRED to IB Docket No. 05-20 for future consideration.

30. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this *Third Report and Order*, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

E. Further Information

31. For further information, contact Jeffrey Tobias, Mobility Division, Wireless Telecommunications Bureau, (202) 418-0680, or TTY (202) 418-7233, or via electronic mail at jeff.tobias@fcc.gov.

32. To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty). This *Third Report and Order* can also be downloaded at: http://www.fcc.gov/.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

[96] *Id*. § 801(a)(1)(a).

APPENDIX A

Commenting Parties

Comments:

Aviation Spectrum Resources, Inc. (ASRI)
Continental Airlines
Inmarsat Ventures Limited (Inmarsat)
Iridium Satellite LLC (Iridium)
Kissel, Fred J. (Kissel)
Knox, Alan C. (Knox)
National Oceanic and Atmospheric Administration (NOAA)
National Telecommunications and Information Administration (NTIA)
Northwest Airlines
Potomac Aviation Technology Corp. (PATC)
Rockwell Collins, Inc. (Rockwell Collins)
Trahos, Michael C. (Trahos)
United States Coast Guard (USCG)

Reply Comments:

ASRI
Globalstar, Inc.
Inmarsat
Iridium
Mobile Satellite Ventures Subsidiary LLC (MSV)
New ICO Satellite Services G.P. (ICO)
Rockwell Collins
TerreStar Networks Inc. (TerreStar)

Ex parte Presentations

Aerospace and Flight Test Radio Coordinating Council (AFTRCC)
Breitling U.S.A., Inc. (Breitling)
FedEx Express (FedEx)
ICO
Iridium
MSV
TerreStar
Wiley Rein LLP

APPENDIX B

Final Rules

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR Parts 1, 2 and 87 as follows:

PART 1 – PRACTICE AND PROCEDURE

1. The authority citation for part 1 continues to read as follows:

Authority: 47 U.S.C. 151, 154(i), 154(j), 155, 225, 303(r), 309 and 325(e).

2. Section 1.948 is amended by revising paragraph (b)(5) to read as follows:

§ 1.948 Assignment of authorization or transfer of control, notification of consummation.

* * * * *

(b)(5) Licenses, permits, and authorizations for stations in the Amateur, Ship, Commercial Operator and Personal Radio Services (except 218–219 MHz Service) may not be assigned or transferred, unless otherwise stated.

* * * * *

PART 2 – FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

3. The authority citation for part 2 continues to read as follows:

Authority: 47 U.S.C. 154, 302a, 303, and 336, unless otherwise noted.

4. Section 2.106, the Table of Frequency Allocations, is amended as follows:

a. Revise page 18.

b. In the list of international footnotes, remove footnote 5.198.

c. In the list of United States footnotes, add footnote US403.

§ 2.106 Table of Frequency Allocations.

The revisions and additions read as follows:

* * * * *

74.8-75.2 AERONAUTICAL RADIONAVIGATION 5.180 5.181			74.8-75.2 AERONAUTICAL RADIONAVIGATION 5.180		Aviation (87)
75.2-87.5 FIXED MOBILE except aeronautical mobile	75.2-75.4 FIXED MOBILE 5.179		75.2-75.4 FIXED MOBILE US273		Private Land Mobile (90)
	75.4-76 FIXED MOBILE	75.4-87 FIXED MOBILE 5.182 5.183 5.188	75.4-88	75.4-76 FIXED MOBILE NG3 NG49 NG56	Public Mobile (22) Aviation (87) Private Land Mobile (90) Personal Radio (95)
5.175 5.179 5.184 5.187	76-88 BROADCASTING Fixed Mobile 5.185	87-100 FIXED MOBILE BROADCASTING		76-88 BROADCASTING NG115 NG128 NG142 NG149	Broadcast Radio (TV)(73) LPTV, TV Translator/Booster (74G) Low Power Auxiliary (74H)
87.5-100 BROADCASTING 5.190	88-100 BROADCASTING		88-108 US93	88-108 BROADCASTING NG2 US93 NG128	Broadcast Radio (FM)(73) FM Translator/Booster (74L)
100-108 BROADCASTING 5.192 5.194					
108-117.975 AERONAUTICAL RADIONAVIGATION 5.197 5.197A			108-117.975 AERONAUTICAL RADIONAVIGATION US93 US343		Aviation (87)
117.975-137 AERONAUTICAL MOBILE (R)			117.975-121.9375 AERONAUTICAL MOBILE (R) 5.111 5.199 5.200 US26 US28 US403		
			121.9375-123.0875 US30 US31 US33 US80 US102 US213	121.9375-123.0875 AERONAUTICAL MOBILE US30 US31 US33 US80 US102 US213	
			123.0875-123.5875 AERONAUTICAL MOBILE 5.200 US32 US33 US112		
			123.5875-128.8125 AERONAUTICAL MOBILE (R) US26 US403		
			128.8125-132.0125	128.8125-132.0125 AERONAUTICAL MOBILE (R)	
			132.0125-136 AERONAUTICAL MOBILE (R) US26		
			136-137 US244	136-137 AERONAUTICAL MOBILE (R) US244	
5.111 5.199 5.200 5.201 5.202 5.203 5.203A 5.203B					

UNITED STATES (US) FOOTNOTES

* * * * *

US403 In Hawaii, the bands 120.647-120.653 MHz and 127.047-127.053 MHz are also allocated to the aeronautical mobile service on a primary basis for non-Federal aircraft air-to-air communications on 120.65 MHz (Maui) and 127.05 MHz (Hawaii and Kauai) as specified in 47 CFR 87.187.

* * * * *

PART 87—AVIATION SERVICES

5. The authority citation for Part 87 continues to read as follows:

AUTHORITY: 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303, 307(e) unless otherwise noted. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. 151-156, 301-609.

6. Section 87.133 is amended by revising paragraph (a) introductory text and adding paragraph (g) to read as follows:

§ 87.133 Frequency stability.

(a) Except as provided in paragraphs (c), (d), (f), and (g) of this section, the carrier frequency of each station must be maintained within these tolerances:

* * * * *

(g) Any aeronautical enroute service transmitter operating in U.S. controlled airspace with 8.33 kHz channel spacing (except equipment being tested by avionics equipment manufacturers and flight test stations prior to delivery to their customers for use outside U.S. controlled airspace) must achieve 0.0005% frequency stability when operating in that mode.

* * * * *

7. Section 87.137 is amended by revising footnote 17 in paragraph (a) to read as follows:

§ 87.137 Types of emission.

a) * * * * *

[17] In the band 117.975-137 MHz, the Commission will not authorize any 8.33 kHz channel spaced transmissions or the use of their associated emission designator within the U.S. National Airspace System, except, on an optional basis, by Aeronautical Enroute Stations and Flight Test Stations, or by avionics equipment manufacturers which are required to perform installation and checkout of such radio systems prior to delivery to their customers. For transmitters certificated to tune to 8.33 kHz channel spacing as well as 25 kHz channel spacing, the authorized bandwidth is 8.33 kHz when tuned to an 8.33 kHz channel.

* * * * *

8. Section 87.171 is amended by removing the entry “FAP–Civil Air Patrol.”

9. Section 87.173 is amended by removing the entry for “72.020-75.980 MHz,” adding entries for “72.02-72.98 MHz” and “75.42-75.98 MHz,” revising the entries for “121.500 MHz,” “121.975 MHz,” “122.025 MHz,” “122.075 MHz,” “123.6-128.8 MHz,” “128.825-132.000 MHz,”

"132.025-135.975 MHz," "136.500-136.875 MHz," and "406.0-406.1 MHz" in the table in paragraph (b) to read as follows:

§ 87.173 Frequencies.

* * * * *

(b) Frequency table:

Frequency or Frequency Band	Subpart	Class of Station	Remarks
* * *	* * *	* * *	* * *
72.02-72.98 MHz	P	FA, AXO	Operational fixed
75.42-75.98 MHz	P	FA, AXO	Operational fixed.
* * *	* * *	* * *	* * *
118.000-121.400 MHz	O, S	MA, FAC, FAW, GCO RCO, RPC	25 kHz channel spacing.
121.500 MHz	G, H, I, J, K, M, O	MA, FAU, FAE, FAT, FAS, FAC, FAM	Emergency and distress.
* * *	* * *	* * *	* * *
121.975 MHz	F, S	MA2, FAW, FAC, MOU	Air traffic control operations.
* * *	* * *	* * *	* * *
122.025 MHz	F, S	MA2, FAW, FAC, MOU	Air traffic control operations.
* * *	* * *	* * *	* * *
122.075 MHz	F, S	MA2, FAW, FAC, MOU	Air traffic control operations.
* * *	* * *	* * *	* * *
123.6-128.8 MHz	O, S	MA, FAC, FAW, GCO, RCO, RPC	25 kHz channel spacing.
128.825-132.000 MHz	I	MA, FAE	Domestic VHF.
132.025-135.975 MHz	O, S	MA, FAC, FAW, GCO, RCO, RPC	25 kHz channel spacing.

* * *	* * *	* * *	* * *
136.500-136.875 MHz	I	MA, FAE	Domestic VHF.
* * *	* * *	* * *	* * *
406.-406.1 MHz	F, G, H, I, J, K, M, O	MA, FAU, FAE, FAT FAS, FAC, FAM	Emergency and distress.

* * * * *

10. Section 87.187 is amended by revising paragraphs (cc) and (dd) and adding new paragraphs (gg) and (hh) to read as follows:

§ 87.187 Frequencies.

* * * * *

(cc) The frequency 120.650 MHz[1] is authorized for air-to-air use for aircraft up to and including 3 km (10,000 ft) mean sea level within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

35–59–44.9 N. Lat; 114–51–48.0 W. Long.

36–09–29.9 N. Lat; 114–50–3.0 W. Long.

36–09–29.9 N. Lat; 114–02–57.9 W. Long.

35–54–45.0 N. Lat; 113–48–47.8 W. Long.

(dd) The frequencies 136.425, 136.450, and 136.475 MHz are designated for flight information services-broadcast (FIS-B) and may not be used by aircraft for transmission.

* * * * *

(gg) (1) The frequency 120.650 MHz is authorized for air-to-air communications for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Maui.

(2) The frequency 121.950 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Molokai.

(3) The frequency 122.850 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Oahu.

(4) The frequency 122.850 MHz is authorized for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Hawaii when aircraft are south and east of the 215 degree radial of very high frequency omni-directional radio range of Hilo International Airport.

(5) The frequency 127.050 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Hawaii when aircraft are north and west of the 215 degree radial of very high frequency omni-directional radio range of Hilo International Airport.

(6) The frequency 127.050 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the Hawaiian Island of Kauai.

(hh) (1) The frequency 121.95 MHz is authorized for air-to-air communications for aircraft within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

33-46-00 N. Lat.; 118-27-00 W. Long.
33-47-00 N. Lat.; 118-12-00 W. Long.
33-40-00 N. Lat.; 118-00-00 W. Long.
33-35-00 N. Lat.; 118-08-00 W. Long.
34-00-00 N. Lat.; 118-26-00 W. Long.

(2) The frequency 122.775 MHz is authorized for air-to-air communications for aircraft within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

34-22-00 N. Lat.; 118-30-00 W. Long.
34-35-00 N. Lat.; 118-15-00 W. Long.
34-27-00 N. Lat.; 118-15-00 W. Long.
34-16-00 N. Lat.; 118-35-00 W. Long.
34-06-00 N. Lat.; 118-35-00 W. Long.
34-05-00 N. Lat.; 118-50-00 W. Long.

(3) The frequency 123.30 MHz is authorized for air-to-air communications for aircraft within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

34-08-00 N. Lat.; 118-00-00 W. Long.
34-10-00 N. Lat.; 117-08-00 W. Long.
34-00-00 N. Lat.; 117-08-00 W. Long.
33-53-00 N. Lat.; 117-42-00 W. Long.
33-58-00 N. Lat.; 118-00-00 W. Long.

(4) The frequency 123.50 MHz is authorized for air-to-air communications for aircraft within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

33-53-00 N. Lat.; 117-37-00 W. Long.
34-00-00 N. Lat.; 117-15-00 W. Long.
34-00-00 N. Lat.; 117-07-00 W. Long.
33-28-00 N. Lat.; 116-55-00 W. Long.
33-27-00 N. Lat.; 117-12-00 W. Long.

(5) The frequency 123.50 MHz is authorized for air-to-air communications for aircraft within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

33-50-00 N. Lat.; 117-48-00 W. Long.
33-51-00 N. Lat.; 117-41-00 W. Long.
33-38-00 N. Lat.; 117-30-00 W. Long.

33-30-00 N. Lat.; 117-30-00 W. Long.
33-30-00 N. Lat.; 117-49-00 W. Long.

11. Section 87.195 is amended by revising the title and text to read as follows:

§ 87.195 Prohibition of 121.5 MHz ELTs.

The manufacture, importation, sale or use of 121.5 MHz ELTs is prohibited.

12. Section 87.199 is amended by revising paragraph (a) to read as follows:

§ 87.199 Special requirements for 406.0-406.1 MHz ELTs.

(a) 406.0-406.1 ELTs use G1D emission. Except for the spurious emission limits specified in § 87.139(h), 406.0–406.1 MHz ELTs must meet all the technical and performance standards contained in the Radio Technical Commission for Aeronautics document titled "Minimum Operational Performance Standards 406 MHz Emergency Locator Transmitters (ELT)" Document No. RTCA/DO–204 dated September 29, 1989. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies of this standard can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.* Copies of the RTCA standards also may be obtained from the Radio Technical Commission of Aeronautics, One McPherson Square, 1425 K Street NW., Washington, DC 20005.

* * * * *

13. Section 87.215 is amended by revising paragraphs (b) and (f) to read as follows:

§ 87.215 Supplemental Eligibility.

* * * * *

(b) Only one unicom will be authorized to operate at an airport which does not have a control tower, RCO or FAA flight service station that operates on the published common traffic advisory frequency. At any other airport, the one unicom limitation does not apply, and the airport operator and all aviation services organizations may be licensed to operate a unicom on the assigned frequency.

* * * * *

(f) At an airport where only one unicom may be licensed, when the Commission believes that the unicom has been abandoned or has ceased operation, another unicom may be licensed on an interim basis pending final determination of the status of the original unicom. An applicant for an interim license must notify the present licensee and must comply with the notice requirements of paragraph (g) of this section.

* * * * *

14. Section 87.263 is amended by revising paragraphs (a)(1) and (c) to read as follows:

§ 87.263 Frequencies.

(a) * * *

(1) Frequencies in the 128.8125–132.125 MHz and 136.4875–137.00 MHz bands are available to serve domestic routes, except that the frequency 136.750 MHz is available only to aeronautical enroute stations located at least 288 kilometers (180 miles) from the Gulf of Mexico shoreline (outside the Gulf of Mexico region). The frequencies 136.900 MHz, 136.925 MHz, 136.950 MHz and 136.975 MHz are available to serve domestic and international routes. Frequency assignments may be based on either 8.33 kHz or 25 kHz spacing. Use of these frequencies must be compatible with existing operations and must be in accordance with pertinent international treaties and agreements.

* * * * *

(c) International VHF service. Frequencies in the 128.825–132.000 and 136.000–137.000 MHz bands are available to enroute stations serving international flight operations. Frequency assignments are based on either 8.33 kHz or 25 kHz channel spacing. Proposed operations must be compatible with existing operations in the band.

* * * * *

15. Section 87.303 is revised by amending paragraph (b) and adding a new paragraph (f) to read as follows:

§ 87.303 Frequencies.

* * * * *

(b) These additional frequencies are available for assignment only to flight test stations of aircraft manufacturers:

MHz	MHz	MHz	MHz
123.125[2]	123.275[3]	123.425[3]	123.550[3]
123.150[2]	123.325[3]	123.475[3]	123.575[2]
123.250[3]	123.350[3]	123.525[3]	

[1] When R3E, H3E or J3E emission is used, the assigned frequency will be 3282.4 kHz (3281.0 kHz carrier frequency).

[2] This frequency is available only to itinerant stations that have a requirement to be periodically transferred to various locations.

[3] Mobile station operations on these frequencies are limited to an area within 320 km (200 mi) of an associated flight test land station

* * * * *

(f) Frequency assignments for Flight Test VHF Stations may be based on either 8.33 kHz or 25 kHz spacing. Assignable frequencies include the interstitial frequencies 8.33 kHz from the VHF frequencies listed in paragraphs (a) and (b) of this section. Each 8.33 kHz interstitial frequency is subject to the same eligibility criteria and limitations as the nearest frequency listed in paragraphs (a) and (b) of this section.

* * * * *

APPENDIX C

Final Regulatory Flexibility Analysis

As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[1] an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Second Further Notice of Proposed Rule Making* (*Second FNPRM*) in this proceeding.[2] The Commission sought written public comment on the proposals in the *Second FNPRM*, including comment on the IRFA.[3] This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.[4]

A. Need for, and Objectives of, the Third Report and Order

The rules adopted in the *Third Report and Order* are intended to ensure that the Commission's Part 87 rules governing the Aviation Radio Service remain up to date and continue to further the Commission's goals of accommodating new technologies, facilitating the efficient and effective use of the aeronautical spectrum, avoiding unnecessary regulation, and, above all, enhancing the safety of flight. Specifically, in the *Third Report and Order* the Commission (a) deletes the secondary allocation of the 117.975-136 MHz aeronautical frequency band for Aeronautical Mobile Satellite (Route) Service (AMS(R)S);[5] (b) permits the use of 8.33 kHz channel spacing in the aeronautical enroute service and by flight test stations;[6] (c) removes one of the four frequencies designated for Flight Information Services – Broadcast (FIS-B);[7] (d) permits the use of specified frequencies for air-to-air communications in Hawaii;[8] (e) permits the use of specified frequencies for air-to-air communications in the Los Angeles area;[9] (f) clarifies the applicability on the one-unicom-per-airport rule;[10] (g) permits the filing of applications to assign or transfer aircraft station licenses;[11] and (h) prohibits the certification, manufacture, importation, sale, or continued use of 121.5 MHz emergency locator transmitters (ELTs) other than the Breitling Emergency Watch ELT.[12]

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[1] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601–612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[2] Review of Part 87 of the Commission's Rules Concerning the Aviation Radio Service, *Second Report and Order and Second Further Notice of Proposed Rule Making*, WT Docket No. 01-289, 21 FCC Rcd 11582 (2006) (*Second FNPRM*).

[3] *Id*. at 11637-42.

[4] *See* 5 U.S.C. § 604.

[5] *See* para. 3, *supra*.

[6] *See* paras. 6-9, *supra*.

[7] *See* para. 10, *supra*.

[8] *See* para. 11, *supra*.

[9] *See* para. 12, *supra*.

[10] *See* para. 13, *supra*.

[11] *See* para. 15, *supra*.

[12] *See* paras. 17-19, *supra*.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

No comments were submitted specifically in response to the IRFA. Nonetheless, we have considered the potential economic impact on small entities of the rules discussed in the IRFA, and we have considered alternatives that would reduce the potential economic impact on small entities of the rules enacted herein.

C. Description and Estimate of the Number of Small Entities to Which Rules Will Apply

The RFA directs agencies to provide a description of, and, where feasible, an estimate of the number of small entities that may be affected by the rules adopted herein.[13] The RFA defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[14] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[15] A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).[16]

33. Small businesses in the aviation and marine radio services use a marine very high frequency (VHF), medium frequency (MF), or high frequency (HF) radio, any type of emergency position indicating radio beacon (EPIRB) and/or radar, an aircraft radio, and/or any type of emergency locator transmitter (ELT). The Commission has not developed a definition of small entities specifically applicable to these small businesses. For purposes of this FRFA, therefore, the applicable definition of small entity is the definition under the SBA rules applicable to wireless service providers. Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category.[17] Prior to that time, such firms were within the now-superseded categories of "Paging" and "Cellular and Other Wireless Telecommunications."[18] Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.[19] Because Census Bureau data are not yet available for the new category, we will estimate small business prevalence using the prior categories and associated data. For the category of Paging, data for 2002 show that there were 807 firms that operated for the entire year.[20] Of this total, 804 firms had employment of 999 or fewer employees, and

[13] 5 U.S.C. § 604(a)(3).

[14] *Id*. § 601(6).

[15] *Id*. § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to the RFA, the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." 5 U.S.C. § 601(3).

[16] Small Business Act, 15 U.S.C. § 632 (1996).

[17] U.S. Census Bureau, 2007 NAICS Definitions, "517210 Wireless Telecommunications Categories (Except Satellite)"; http://www.census.gov/naics/2007/def/ND517210.HTM#N517210.

[18] U.S. Census Bureau, 2002 NAICS Definitions, "517211 Paging"; http://www.census.gov/epcd/naics02/def/NDEF517.HTM.; U.S. Census Bureau, 2002 NAICS Definitions, "517212 Cellular and Other Wireless Telecommunications"; http://www.census.gov/epcd/naics02/def/NDEF517.HTM.

[19] 13 C.F.R. § 121.201, NAICS code 517210 (2007 NAICS). The now-superseded, pre-2007 C.F.R. citations were 13 C.F.R. § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

[20] U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization," Table 5, NAICS code 517211 (issued Nov. 2005).

three firms had employment of 1,000 employees or more.[21] For the category of Cellular and Other Wireless Telecommunications, data for 2002 show that there were 1,397 firms that operated for the entire year.[22] Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more.[23] Thus, we estimate that the majority of wireless firms are small.

Some of the rules adopted herein may also affect small businesses that manufacture aviation radio equipment. The Commission has not developed a definition of small entities applicable to aviation radio equipment manufacturers. Therefore, the applicable definition is that for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturers. The Census Bureau defines this category as follows: "This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment."[24] The SBA has developed a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees.[25] According to Census Bureau data for 2002, there were a total of 1,041 establishments in this category that operated for the entire year.[26] Of this total, 1,010 had employment of under 500, and an additional 13 had employment of 500 to 999.[27] Thus, under this size standard, the majority of firms can be considered small.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

The *Third Report and Order* does not impose any additional reporting, recordkeeping, or other compliance requirements on small entities.

E. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

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[21] *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[22] U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization," Table 5, NAICS code 517212 (issued Nov. 2005).

[23] *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[24] U.S. Census Bureau, 2002 NAICS Definitions, "334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing"; http://www.census.gov/epcd/naics02/def/NDEF334.HTM#N3342.

[25] 13 C.F.R. § 121.201, NAICS code 334220.

[26] U.S. Census Bureau, American FactFinder, 2002 Economic Census, Industry Series, Industry Statistics by Employment Size, NAICS code 334220 (released May 26, 2005); http://factfinder.census.gov. The number of "establishments" is a less helpful indicator of small business prevalence in this context than would be the number of "firms" or "companies," because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks-out data for firms or companies only to give the total number of such entities for 2002, which was 929.

[27] *Id*. An additional 18 establishments had employment of 1,000 or more.

The RFA requires an agency to describe any significant alternatives that it has considered in developing its approach, which may include the following four alternatives (among others): "(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities."[28]

As explained in Section D of this FRFA, *supra*, the *Third Report and Order* does not impose any additional reporting, recordkeeping, or other compliance requirements on small entities. In the IRFA accompanying the *Second FNPRM*, the Commission identified two measures that it was considering that might conceivably impose significant new compliance burdens on small entities: (1) the adoption of rules requiring that mobile satellite systems accord priority and preemptive access to AMS(R)S communications in additional frequency bands, including the 1.6 MHz, 2 MHz, and 5 MHz frequency bands, and (2) the adoption of rules mandating a transition to 8.33 kHz channel spacing in the aeronautical enroute service.[29] In the *Third Report and Order*, however, the Commission does not adopt either of these requirements. The Commission has determined to defer addressing the possibility of requiring MSS licensees to accord priority and preemptive access to AMS(R)S communications in additional frequency bands until other matters pertaining to MSS licensees are addressed in other proceedings.[30] In addition, the Commission has decided not to mandate that the aeronautical enroute service transition to 8.33 kHz channel spacing, but only to allow such a transition to 8.33 kHz channel spacing in the aeronautical enroute (and flight test station) service on a permissive basis.[31] Finally, as noted, the Commission determined in the IRFA accompanying the *Second FNPRM* that none of the other rule changes under consideration would impose any new compliance burden on any entity,[32] and there is nothing in the record to undermine that conclusion. In sum, none of the rule changes adopted in the *Third Report and Order* imposes a new compliance burden on any entity.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

None.

Report to Congress: The Commission will send a copy of the *Third Report and Order* in WT Docket No. 01-289, including the Final Regulatory Flexibility Analysis, in a report to be sent to Congress pursuant to the Congressional Review Act.[33] In addition, the Commission will send a copy of the *Third Report and Order* in WT Docket No. 01-289, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the SBA. A copy of the *Third Report and Order* in WT Docket No. 01-289 and the Final Regulatory Flexibility Analysis (or summaries thereof) will also be published in the Federal Register.[34]

[28] 5 U.S.C. § 603(c)(1)-(4).

[29] *See Second FNPRM*, 21 FCC Rcd at 11641.

[30] *See* n. 2, *supra*.

[31] *See* paras. 6-9, *supra*.

[32] *See Second FNPRM*, 21 FCC Rcd at 11640.

[33] *See* 5 U.S.C. § 801(a)(1)(A).

[34] *See id*. § 604(b).